

OCT 07 2002

LIST OF PRIOR ART CITED BY APPLICANT
(Use several sheets if necessary)

ATTY. DCKET NO.

SERIAL NO.

09/583,229

APPLICANT

JOHS ET AL.

FILING DATE

5/30/00

GROUP

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
38	AA	4 6 7 1 6 5 7	6/9/87	Calvani et al.	356	349	
	AB	5 1 6 6 7 5 2	11/24/92	Spanier et al.	356	369	
	AC	5 3 4 9 4 7 1	9/20/94	Morris et al.	359	585	
	AD	5 8 7 7 8 5 9	3/2/95	Aspnes et al.	356	364	
	AE	5 9 6 3 3 2 7	10/5/95	He et al.	356	369	
38	AF	5 9 7 8 0 8 7	11/2/95	Patterson et al.	356	369	
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
38	AS	2 2 9 7 2 0	2/21/94	Japan				
	AM							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

38	AR	WO 91/14157	Published PCT Application			
		WO 92/12404	" "	"	"	"
38	AS	WO 96/18205	" "	"	"	"
		WO 99/02950	" "	"	"	"

EXAMINER	DATE CONSIDERED
Galen SA	5/13/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1/58 3,229 2/3
OCT 6 2002
RECEIVED
PLEASE USE THIS FOR PTO FORM 1449 FOR NON-PATENT MATERIALS
FEB 11 2000

3 Copy of December 1996 Vintage J.A. WOOLLAM CO. M-44/M-88 MULTIWAVELENGTH ELLIPSOMETERS indicating Focused Spot to 20 Microns, including signed Letter from Roger Bruhn, the photographer who took the pictures therein, which letter attests to the date it was produced.

3 Copy of SOPRA Brochure disclosing their MOSS System, which utilizes Achromatic Focusing lenses and which predates 11 July 2000. Sopra is a competitor of the J.A. Woollam Co. Inc.

3 Article from October 1997 J. of Tribology titled "Flying Height Measurement on Al₂O₃ Film of a Magentic Slider" by Yufeng Li of Samsung; discloses use of a J.A. Woollam Co. M-44 Multiwavelength Ellipsometer to focus a beam to 17 microns. This system had doublet achromatic lenses installed therein.

3 Article from Thin Solid Films Published 27 March 2000, by Zapien et al, showing use of achromatic focusing lenses before and after a sample in a spectroscopic ellipsometer.

3 Excerpts from a "classic" textbook titled OPTICS, by Hecht, Addison Wesley Press, (1977), which describes use of Multiple Element Achromatic Lenses.

3 Article from Thin Solid Films Published April 1993, by El-Ghazzawi et al, showing use of focusing lenses in the SOPRA company model "MOSS ES-4G Spectroscopic Ellipsometer"

3 Two J.A. Woollam Co. spectroscopic ellipsometer "models" with achromatic multiple-element lenses sold prior to July 11, 2000: "M-44 (44 wavelengths, blue to red), and "VASE" (continuous wavelengths from blue to infrared).

DETAILED DOCUMENTATION:

3 "M-44" spectroscopic ellipsometers:

- o Catalog pages of Edmund Scientific Corporation achromatic lens sets (dated prior to July 11, 2000).
- o J.A. Woollam Co., Inc. Purchase Orders from Edmund Scientific Company, with catalog cover dates and part numbers predating July 11, 2000.
- o Evidence of sales (Purchase orders, shipping documents, invoices, from customers) of the "M-44" type spectroscopic ellipsometers containing achromatic focusing lenses prior to July 11, 2000.
- o Order bills for M-44 Ellipsometer with achromatic focusing lenses for NANOMETRICS Corporation. Order numbers correspond with "Packing List" and "Purchase Order Receiver" numbers listed in Erik Bylin's Affidavit.

Zapien 8/13/03

2001 07 2002
3/7
RECEIVED
"VASE" spectroscopic ellipsometers:

- o Catalog pages of Melles Griot Corporation achromatic lens sets (with issue dates prior to July 11, 2000).
- o J.A. Woollam Co., Inc. Purchase Orders, packing list, shipping documents, invoices, from 2000 Melles Griot Corporation, with catalog cover dates and part numbers predating July 11, 2000.
- o Evidence of sales (Purchase orders, from customers) of the "VASE" type spectroscopic ellipsometers containing achromatic focusing lenses prior to July 11, 2000.
- o Instruction manual dated 1994 for use of the focusing VASE with achromatic focusing lenses.
- o VASE advertisement from February 1999 R&D Magazine.

**U.S., EPO AND JAPANESE VERSIONS OF DANNER ET AL.
PATENT APPLICATIONS:**

38
EPO EP 1 172 642 A2
JAPAN 2002098591 A
US US 2002/0024669 A1

38
**AFFIDAVITS ATTESTING TO THE FACT THAT THE J.A. WOOLLAM CO.,
INC. PROVIDED ELLIPSOMETER SYSTEMS WITH ACHROMATIC LENSES
ON BOTH SIDES OF A SAMPLE PRIOR TO 11 JUNE 2000.**

Affidavit from John Woollam, President of J.A. Woollam Co.

Affidavit from Hiroki Hashimoto of Fujitsu Corporation, Japan in both English and Japanese; along with the Fujitsu purchase order sheet and Acceptance Report.

Affidavit from Michio Suzuki of J.A. Woollam Co., Japan in both English and Japanese; along with purchase order sheet.

Affidavit from Geng Wang of Samsung Information Systems America, Inc.; along with the purchase order and original quotation.

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Affidavit from Erik Bylin, Product Manager, NANOmatics Corporation

Green *[Signature]* 5/13/03